



Seminar/Talk

Proteogenomic Analyses of Allergic Mast Cell Degranulation

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Mast cells are ancient immune cells with key effector functions in allergic and anaphylactic reactions. Mast cells bind circulating IgE with their FCER1A surface receptor and thereby acquire a functional antigen receptor module. As mast cells and their surface-bound IgE are long-lived, their allergic antigen reactivity reflects the current and historical IgE production. Upon allergic antigen encounter, mast cells release a large number of pre-formed and newly produced bioactive substances from their granules in a process termed degranulation. Antigen-induced IgE:FCER1 proximal signaling has been elucidated in great detail. However, downstream signals regulating degranulation are not well understood. We performed systematic proteomic analyses of kinetic mast cell degranulation combined with loss-of-function CRISPR screens to shed light on these processes.

Friday, December 5, 2025 09:30am - 10:30am

Mondi 2, Central Building



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